

## HEAD MASSAGING DEVICE

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### Field of the Invention

- 5 The present invention relates to a head massaging device.

### Background of the Invention

- 10 Massaging of the human body is well known and is used to achieve numerous different effects. For example massaging may be used in physiotherapy for pain relief or to assist in the healing of damaged muscles or tendons. Massaging is also a well established technique for relieving stress and tension and providing physical relaxation, stimulation and pleasure.

- 15 Massaging is predominantly performed by direction hand/finger manipulation although hand held massaging tools are also known. These tools can be broadly categorised into powered (e.g. electrically powered) and manual tools.

- 20 Of the manual massaging tools very few have been made specifically for massaging the head and scalp. One tool that is known comprises four small wooden spheres connected to a larger central and raised wooden sphere by short wooden rods. The largest sphere acts as a handle to push and rub the smaller spheres against the body. These spheres can be applied to the head to massage the head and scalp.

### 25 Summary of the Invention

The present invention was devised to produce an alternate form of manual head/scalp massaging device.

- 30 According to one aspect of the present invention there is provided a head massaging device comprising a plurality of resilient fingers, said fingers each having a free end and

an opposite end, said opposite ends being coupled together, said fingers defining a head receiving space for receiving a head, said space extending between said free ends and said opposite ends and having an opening at one end formed by a juxtaposition of said free ends of said fingers, said opening being smaller than said head, and at least a portion of said head receiving space having a circumference which exceeds a circumference of said opening whereby, in use, when said device is lowered onto said head so that said head enters said head receiving space through said opening, said free ends of said fingers apply pressure to and thus massage said head.

- 10 Preferably the device further includes vibrating means coupled to said opposite ends of said fingers whereby vibrations generated by said vibrating means are transmitted from said opposite ends through said fingers to said free ends.

15 Preferably the device further includes a handle for receiving opposite ends of said fingers and which is disposed said vibrating means, said handle facilitating gripping and manipulation of said massaging device.

According to a further aspect of the present invention there is provided a head massaging device including at least:

- 20 a plurality of resilient and pliable fingers, said fingers each having a free end and an opposite end;

vibrator coupled to said opposite ends whereby vibrations generated by said vibrator are transmitted along said fingers from said opposite ends to said free ends; and

- 25 said fingers defining a self-supporting head-receiving space for receiving a head, said space extending between said free ends and said opposite ends and having a self-maintained opening at one end formed by a juxtaposition of said free ends of said fingers, said opening being of a circumference smaller than a circumference of said head, whereby said head can fit inside said space with said free ends in contact with said head, and at least a portion of said head-receiving space having a circumference which is greater than said
- 30 circumference of said opening whereby, in use, when said device is lowered on to said head so that said head enters said head-receiving space through said opening, said free

ends of said fingers apply pressure to and thus massage said head.

According to a further aspect of the present invention there is provided a head massaging device including at least:

- 5 a plurality of resilient fingers, said fingers each having a free end and an opposite end;  
a vibrator coupled to said opposite ends whereby vibrations generated by said vibrator are  
transmitted along said fingers from said opposite ends to said free ends; and,  
a handle for receiving said opposite ends and in which is disposed said vibrator;  
10 each of said fingers having a transversely extending portion immediately adjacent the  
handle, each said transversely extending portion being followed by a contiguous portion  
extending downwardly and inwardly from said transversely extending portion, said  
contiguous portion terminating in said free end, said intermediate length and continuous  
length of said fingers together defining a head-receiving space for receiving a space, said  
15 space extending between said free ends and said opposite ends and having an opening at  
one end formed by a juxtaposition of said free ends of said fingers, said opening having a  
circumference smaller than a circumference of said head, and at least a portion of said  
head-receiving space having a circumference which exceeds said circumference of said  
opening whereby, in use, when said device is lowered on to said head so that said head  
20 enters said head-receiving space through said opening, said free ends of said fingers apply  
pressure to and thus massage said head.

Preferably said fingers are electrically conductive.

- 25 Preferably said fingers comprise copper wire.

Preferably the fingers are pliable to that the size and shape of the opening can be varied.

Preferably the free end of each finger is smoothly terminated.

- 30 Preferably each free end is terminated in a bulb or ball like structure.

Preferably the free end of each fingers terminates in a resin bulb or ball like structure.

Preferably the fingers are made of wire.

5      Preferably the fingers are electrically conductive.

Preferably the fingers are made of copper wire.

10      Preferably the head massaging device comprises between four and twenty four fingers.

Preferably the opposite ends of the fingers are connected together.

Preferably the connected opposite ends of the fingers terminate in or otherwise form a handle for gripping and manipulating the massaging device.

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#### Brief Description of the Drawings

An embodiment of the present invention will now be described by reference to the accompanying drawings in which:

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Figure 1 is a schematic representation of a first embodiment of the head massaging device; and,

Figure 2 is a schematic representation of a second embodiment of the head massaging device showing its handle in partial section.

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#### Detailed Description of the Preferred Embodiments

30      The head massaging device 10 comprises a plurality of resilient fingers 12 defining a head receiving space 14 having an opening 16 at one end formed by the relative juxtaposition of the respective free ends 18 of the fingers 12. The opening 16 is smaller than the size of the head so that in use when the device 10 is lowered onto the head so that the head enters the

space through the opening 16, the free ends 18 of the fingers 12 apply pressure to, and thus massage, the head.

- 5    The fingers 12 are pliable so that the size and shape of the openings 16 can be varied to suit different people. That is, the fingers 12 can be bent to ensure that the opening 16 is of a size so that the free ends 18 contact the head/scalp of a person when the device 10 is lowered onto the head with the head entering the space 14 through opening 16.
- 10   The characteristics of resilience and pliability of the fingers 12 can be achieved by making the fingers 12 from wire. Copper wire is particularly well suited because of its wide availability and low cost. It may be beneficial for the wire making up the fingers 12 to be electrically conductive, which of course will follow if the wire is made from copper.
- 15   To ensure that the free ends 18 do not scratch the scalp, they are smoothly terminated. This can be achieved by terminating the free end of each finger in a bulb or ball like structure. This structure can be formed integrally with the fingers 12. Alternately, bulb or ball like structures can be fixed or otherwise attached to the free ends 18. One way of doing this is to dip the lower ends of the fingers 18 into a resin then lift the fingers 12 out
- 20   of the resin so that as the resin flows down each of the fingers 12 it collects and forms a droplet depending from the free ends 18 which upon hardening forms the bulb or ball like structure.
- 25   Opposite ends 20 of the fingers 12 are coupled or connected together to form part of a handle 22 for gripping and manipulating the device 10. When the fingers 12 are made of wire, the ends 20 can be simply twisted and otherwise wound together. A plastic housing or other sheath 24 can be slipped over the ends 20 to complete the handle 22 and make it easier to grip.
- 30   By making the fingers 12 pliable, the device 10 can be easily packaged and stored in a flat rectangular box by simply flattening half of the fingers 12 on opposite sides of the handle

22. When it is desired to use the device 10 the fingers 12 are simply spread out about the handle 22 from the flat condition.

Figure 2 depicts a second embodiment of the head massaging device 10' which differs from the device 10 depicted in Figure 1 by forming the handle 22 with a housing 24' which receives the free ends 20 of the fingers 12 and in which is disposed a vibrating means (e.g. a vibrator) 26 and battery 28. The vibrator 26 can be in the form of any commercially available battery powered vibrating motor. A switch 30 is provided on the handle 22 for selectively opening and closing an electric circuit 32 coupling the battery 28 to the vibrator 26. In this particular embodiment, the ends 20 of fingers 12 are wedged between the outside of the vibrator 26 and an inside surface of the housing 24'. When the switch 30 is operated to close the circuit 32, an electric current is fed from the battery 28 to the vibrator 26 causing it to vibrate. The vibrations are transmitted along the fingers 12 from the ends 20 to the free ends 18. The housing 24' is provided with a removable end cap 34 to allow replacement of the battery 28.

Now that embodiments of the massaging device 10, 10' have been described in detail it will be apparent to those skilled in the relevant arts and numerous modifications and variations can be made without departing from the basic inventive concepts. For example, the illustrated embodiments depict devices 10, 10' having eight fingers 12. However the device 10, 10' can be made with any number of fingers with the preferred minimum number being four and preferred maximum number being twenty four. Further, the fingers 12 may be made from plastics, synthetic materials or composites. It is also stressed that the pliability of the fingers 12 is not an essential characteristic of the device 10. If the fingers 12 are made solely from a plastics material then they will still have the resilient characteristic as required by not the preferred feature of pliability. In yet a further variation, each finger 12 can be made as a dual or multi component element having at least a first lower element which includes the free ends 18 being made from a resilient material and a second upper component that can provide the feature of pliability. For example, each finger 12 can be made from the first lower length of plastics material which includes the free end 18 and an upper length say of wire joined to the lower length (for example by

- an adhesive or epoxy resin) leading to the handle 22 to provide the characteristic of pliability to the finger 12. This then allows the finger 12 to be flattened for storage and opened up for use as well as allowing reshape and resizing of the opening 16. Also, there are numerous alternatives for smoothly terminating the free end 18 of each finger 12. For example, a plastic or metal sleeve having a smooth end can be applied and otherwise affixed to the free end 18 of each finger provided there is a smooth termination. Alternately, the free end 18 of each finger may simply be machined or otherwise worked to provide a smooth termination.
- 10 Further, in relation to the vibrating massaging device 10' depicted in Figure 2, rather than having the ends 20 of fingers 12 wedged between the vibrator 26 and the inside of housing 24', other types of mechanical coupling of the vibrations generated by the vibrator 26 can be incorporated. For example, the vibrator 26 can be arranged to transmit vibrations directly to the handle 22, or housing 24' with the ends 20 coupled to the handle 22 or
- 15 housing 24' to receive those vibrations.

All such modifications and variations are deemed to be within the scope of the present invention the nature of which is to be determined from the above description and the appended claims.